What is claimed is:

1. An apparatus for positioning a substrate on a transfer robot comprising:

a rotatable jaw comprising:

a base portion having a first end and a second end; and

an arm extending from the first end of the base portion to a gripper adapted to contact an edge of the substrate;

a mounting bracket pivotably coupled to the base portion between the first and second ends, the mounting bracket adapted for mounting to a portion of the transfer robot; and

a biasing member disposed between the jaw and the mounting bracket, the biasing member urging the jaw to rotate about an axis substantially normal to the jaw.

2. The apparatus of claim 1, further comprising:

a striker coupled to the second end of the base portion and extending therefrom at an angle substantially normal to the base portion;

3. The apparatus of claim 2, wherein the jaw is adapted to rotate upon contact of the striker with a feature remote from the transfer robot.

4. The apparatus of claim 1, wherein the jaw further comprises:

a pivot hole disposed through the first end of the base portion; and

a pin disposed through the pivot hole and coupling the jaw to the mounting bracket, the jaw.

5. The apparatus of claim 2, wherein the gripper comprises:

a shaft having a first end coupled to the arm; and

a disk supported for rotation upon a second end of the shaft.

6. The apparatus of claim 5, wherein a bearing is disposed between the shaft and the disk.

7. The apparatus of claim 2, wherein the striker comprises:

a shaft projecting from the base portion at an angle substantially normal to the base portion; and

a sleeve coupled to the shaft and adapted to rotate about a longitudinal axis of the shaft.

8. The apparatus of claim 7, wherein a bearing is disposed between the shaft and the sleeve.

9. The apparatus of claim 1, wherein the angular displacement of the jaw is adjustable.

10. The apparatus of claim 9, wherein the mounting bracket further comprises:

a first pin extending outwardly from the mounting bracket; and

a second pin extending outwardly from the mounting bracket, the jaw separating the first and second pins, wherein a position of at least on of the pins is adjustable to limit the displacement of the jaw.

11. The apparatus of claim 1, wherein the biasing member is at least one of a flat spring, a compression spring, a torsion spring, a gas spring, a magnet, a resilient material, a spring form, a linear actuator, a solenoid.

12. A robot adapted for transferring a substrate from a first location to a second location within a semiconductor substrate processing system, comprising:

a robot having a linkage for moving at least one end effector adapted for supporting the substrate thereon; and

at least two rotatable jaws coupled to opposite sides of the end effector, wherein each jaw is mechanically actuatable by a structure remote from the robot and end effector.

13. The robot of claim 12, wherein each jaw comprises:

a base portion adapted for rotation about an axis substantially normal to a direction of extension of the end effector, the base portion having a first end and a second end; and

an arm extending from the first end of the base portion to a gripper adapted to contact an edge of the substrate.

14. The robot of claim 12, further comprising:

a mounting bracket adapted for mounting at least a first jaw of the jaws to the robot; and

a biasing member disposed between the first jaw and the mounting bracket, and urging the jaw to rotate about an axis substantially normal to a direction of extension of the end effector.

15. The robot of claim 13, wherein each jaw further comprises:

a striker coupled to the second end of the base portion and extending therefrom at an angle substantially normal to the base portion.

16. The robot of claim 15, wherein each jaw is adapted to rotate outward relative to the robot end effector upon contact of the striker with the structure remote from the robot and end effector.

17. The robot of claim 13, wherein the each jaw further comprises:

a pivot hole disposed through the first end of the base portion; and

a pin disposed through the pivot hole and coupling the jaw to the mounting bracket.

18. The robot of claim 12, wherein each gripper further comprises:

a shaft having a first end coupled to the arm; and

a disk supported for rotation upon a second end of the shaft.

19. The robot of claim 18, wherein a bearing is disposed between the shaft and the disk.

20. The robot of claim 15, wherein the striker comprises:

a shaft projecting from the base portion at an angle substantially normal to the base portion; and

a sleeve coupled to the shaft and adapted to rotate about a longitudinal axis of the shaft.

21. The robot of claim 12, wherein the angular displacement of the jaws are adjustable.

22. The robot of claim 21 further comprising:

a biasing member adapted to rotationally urge at least one of the jaws, wherein the biasing member is at least one of a flat spring, a compression spring, a torsion spring, a gas spring, a magnet, a resilient material, a spring form, a linear actuator, a solenoid.

23. A system for processing semiconductor substrates comprising:

at chamber;

a robot disposed within the chamber and having an end effector; and

a gripper assembly coupled to the robot, the gripper assembly being mechanically actuatable by a structure remote from the robot and end effector.

24. The system of claim 23, wherein the gripper assembly comprises:

at least two rotatable jaws, one jaw being positioned laterally on either side of the robot end effector;

a mounting bracket adapted for mounting each of the at least two jaws to a portion of the robot end effector; and

a biasing member disposed between each of the at least two jaws and the mounting brackets, adapted for urging the at least two jaws to rotate about an axis substantially normal to the robot end effector.

25. The system of claim 24, wherein each of the at least two jaws comprises:

a base portion coupled directly to the mounting bracket, the base portion

having a first end and a second end;

an arm coupled at a first end to the first end of the base portion and extending outwardly therefrom;

a striker coupled to the second end of the base portion and extending therefrom at an angle substantially normal to the base portion; and

a gripper coupled to a second end of the arm.

26. The system of claim 25, wherein the jaw is adapted to rotate outward relative to the robot end effector upon contact of the striker with the structure remote from the robot.

27. The system of claim 25, wherein the gripper comprises:

a shaft having a first end coupled to the second end of the arm and extending outwardly therefrom at an angle substantially normal to the arm; and

a disk supported for rotation upon a second end of the shaft.

28. The system of claim 27 further comprising:

a bearing disposed between the shaft and disk.

29. The system of claim 25, wherein the striker comprises:

a shaft projecting from the base portion at an angle substantially normal to the base portion; and

a sleeve coupled to the shaft and adapted to rotate about a longitudinal axis of the shaft.

30. The system of claim 29 further comprising:

a bearing disposed between the shaft and sleeve.

31. The system of claim 21 further comprising:

a biasing member adapted to rotationally urge at least one of the jaws.

32. The system of claim 31, wherein the biasing member is at least one of a flat spring, a compression spring, a torsion spring, a gas spring, a magnet, a

resilient material, a spring form, a linear actuator, a solenoid.

33. The system of claim 24, wherein the chamber further comprises:
at least one substrate transfer passage formed in the chamber; and
a slit valve adapted to selectively seal the transfer passage.

34. The system of claim 33, wherein the structure for actuating the gripper is at least one of the chamber or slit valve.

35. The system of claim 33, further comprising:
a striker plate positioned adjacent the transfer passage to engage the gripper assembly as the end effector is moved through the passage.

36. The system of claim 37, wherein the striker plate is positionable along a direction defined by an axis of extension of the end effector through the passage.

37. The system of claim 36 further comprising:
a mounting block coupled to at least one of the chamber and slit valve, the block having a threaded hole for receiving a stud extending from the striker plate.

38. The system of claim 37 further comprising:
a locking mechanism for fixing the engagement of the stud and the threaded hole.